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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,782	12/19/2001	Masaji Shinjo	JP000033	3212
24737	7590	04/22/2004	EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			ERDEM, FAZLI	
			ART UNIT	PAPER NUMBER
			2826	

DATE MAILED: 04/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/024,782

Applicant(s)

SHINJO, MASAJI

Examiner

Fazli Erdem

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 7, 8, 10, 11, 15 and 18 is/are rejected.
- 7) ☒ Claim(s) 4, 6, 12-14, 16, 17, 19 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Allowable Subject Matter

1. Claims 4, 6, 12, 13, 14, 16, 17, 19 and 20 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 5, 7, 10 and 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Yamanaka et al. (6,452,653) in view of Jang et al. (6,522,375) further in view of Goto et al. (JP 11-183730) further in view of Korishima et al. (JP 9-288274) further in view of Broeng et al. (6,539,155) further in view of Yamamoto et al. (6,407,786) further in view of Tsuda et al. (6,097,458).

Regarding Claims 1-3, 5, 7, 10, 11, Yamanaka et al. disclose reflector, method of fabricating the same, reflective display device comprising reflector, and method of fabricating the same where a reflector comprises a substrate provided with a plurality of projecting and depressed structures which are groups of columnar portions each serving as a basic unit and composed of plurality of minute columnar portions, which are separate from each other or at least partially connected to each other, and with a light reflecting thin film provided over the

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projecting and depressed structures. The reflective display device has a liquid crystal layer provided between a pair of substrates. One of the pair of substrates is provided with projecting and depressed portions covered with a metal film and with a support portion for supporting the counter substrate, which are molded integrally. Yamanaka et al. fail to disclose the required projecting and depressions, the required shape configuration, the required shape configuration in the required manner, the required vertex structure, required vertex structure in proper configuration and the required polygon structure. However, Jang et al. disclose a reflection type liquid crystal display and a method for fabricating the same where the required projecting and depression structure are disclosed. Furthermore, Goto et al. disclose a light guide plate, surface light source using the light guide plate and liquid crystal display device where the required shape structure is disclosed. Korishima et al. disclose a liquid crystal display structure where the required shape structure in the required manner is disclosed. Additionally, Broeg et al. disclose microstructured optical fibres where the required vertex structure is disclosed. Finally, Yamamoto et al. disclose a liquid crystal display device and method of fabricating the same where the required vertex structure in the required configuration is disclosed. Tsuda et al. disclose disclose a reflector, reflective liquid crystal display incorporating the same and the method for fabricating the same where in claim 31 the required polygon structure is disclosed.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the required projecting and depression structures, the required shape structure, the required shape structure in the required manner, the required vertex structure, the required vertex structure in the required configuration and the required polygon structure in Yamanaka et al. as taught by Jang et al., Goto et al., Korishima et al., Broeng et al., Yamamoto

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and Tsuda et al. respectively in order to have a liquid crystal display device with better performance.

3. Claims 8, 15 and 18 rejected under 35 U.S.C. 103(a) as being unpatentable over Yamanaka et al. (6,452,653) in view of Jang et al. (6,522,375) further in view of Goto et al. (JP 11-183730) further in view of Korishima et al. (JP 9-288274) further in view of Tsuda et al. (6,097,458).

Regarding Claims 8, 15, and 18, Yamanaka et al. disclose reflector, method of fabricating the same, reflective display device comprising reflector, and method of fabricating the same where a reflector comprises a substrate provided with a plurality of projecting and depressed structures which are groups of columnar portions each serving as a basic unit and composed of plurality of minute columnar portions, which are separate from each other or at least partially connected to each other, and with a light reflecting thin film provided over the projecting and depressed structures. The reflective display device has a liquid crystal layer provided between a pair of substrates. One of the pair of substrates is provided with projecting and depressed portions covered with a metal film and with a support portion for supporting the counter substrate, which are molded integrally. Yamanaka et al. fail to disclose the required projecting and depressions, the required shape configuration, the required shape configuration in the required manner and the required polygon and pixel structure. However, Jang et al. disclose a reflection type liquid crystal display and a method for fabricating the same where the required projecting and depression structure are disclosed. Furthermore, Goto et al. disclose a light guide plate, surface light source using the light guide plate and liquid crystal display device where the

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required shape structure is disclosed. Korishima et al. disclose a liquid crystal display structure where the required shape structure in the required manner is disclosed. Tsuda et al. disclose a reflector, reflective liquid crystal, display incorporating the same and method for fabricating the same where the required pixel and polygon structure are disclosed.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the required projecting and depression structures, the required shape structure, the required shape structure in the required manner and the pixel structure and polygon in Yamanaka et al. as taught by Jang et al., Goto et al., Korishima et al., and Tsuda et al. respectively in order to have a liquid crystal display device with better performance.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FE

April 19, 2004


Minhloan Tran
Primary Examiner
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